

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) An apparatus comprising:
a semiconductor laser fixed to a board substrate so that the semiconductor laser emits light in a direction substantially perpendicular to the plane of the board substrate, through an opening in the board substrate;
a base having a first opening of a dimension suitable to pass a light emission therethrough, fixedly attached to the board substrate so that the first opening aligns with the opening in the board substrate through which the semiconductor laser emits light;
a first side wall coupled to the base and having a second opening of a dimension suitable to pass a light emission therethrough;
a second side wall coupled to the base and having a planar reflective component thereon, and the base, the first side wall, and the second side wall define an interior chamber with the planar reflective component disposed in the interior chamber; and
a fiber connector extending from an exterior of the first side wall adjacent the second opening.
2. (Original) The apparatus of claim 1, further comprising a converging lens disposed about the first opening and defining a principal focus at the reflective component.
3. (Original) The apparatus of claim 2, wherein the converging lens comprises a first converging lens, the apparatus further comprising a converging lens disposed about the second opening and the reflective component is disposed at a principal focus of each of the first lens and the second lens.
4. (Currently amended) ~~The apparatus of claim 1,~~ An apparatus comprising:
a base having a first opening of a dimension suitable to pass a light emission therethrough;

a first side wall coupled to the base and having a second opening of a dimension suitable to pass a light emission therethrough;

a second side wall coupled to the base and having a reflective component thereon, and the base, the first side wall, and the second side wall define an interior chamber with the reflective component disposed in the interior chamber;
and

a fiber connector extending from an exterior of the first side wall adjacent the second opening,

wherein the second side wall is coupled to the first side wall and the base such that the apparatus comprises a polygon body of trigonal and tetrahedral facets.

5. (Original) The apparatus of claim 1, wherein the fiber connector is adapted to accept an LC connector.

6. (Original) The apparatus of claim 1, wherein the first opening and the second opening are aligned through the reflective component to receive a light emission and the base has a third opening and the first side wall has a fourth opening, and the third and fourth opening are aligned to receive a light transmission.

7. (Currently amended) A system comprising:
an optical circuit substrate;
at least one of a light receiving source and a light emitting source coupled to the optical circuit substrate and aligned so as to receive or emit light through an opening in the optical circuit substrate;

an optical subassembly coupled to the optical circuit substrates and comprising an input, an output, and a reflective component, the input and reflective component disposed in a path of the at least one of the light receiving source and the light emitting source; and

a fiber optic connector alignment guide coupled to the output of the optical subassembly.

8. (Original) The system of claim 7, wherein the fiber optic alignment guide is adapted to be mated to an LC connector.
9. (Original) The system of claim 7, further comprising a converging lens disposed about the input of the optical subassembly and defining a principal focus at the reflective component.
10. (Original) The system of claim 9, wherein the converging lens comprises a first converging lens, the optical subassembly further comprising a converging lens disposed about the output and the reflective component is disposed at a principal focus of each of the first lens and the second lens.
11. (Original) The system of claim 7, wherein the optical subassembly comprises a base having the input, a first side wall having the output, and a second side wall comprising the reflective component coupled to the first side wall and the base such that the optical subassembly comprises a polygon body of triangular and tetrahedral facets.
12. (Original) The system of claim 7, wherein the optical circuit substrate is a transceiver substrate.
13. (Original) The system of claim 7, wherein the light emitting source comprises a vertical cavity surface emitting laser (VCSEL) substrate disposed to emit light in a perpendicular direction relative to a top surface of the VCSEL substrate.
14. (Canceled)
15. (Canceled)
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (New) An apparatus comprising:
a photodetector fixed to a board substrate so that the photodetector receives light from a direction substantially perpendicular to the plane of the board substrate, through an opening in the board substrate;

a base having a first opening of a dimension suitable to pass a light emission therethrough, fixedly attached to the board substrate so that the first opening aligns with the opening in the board substrate through which the photodetector receives light;

a first side wall coupled to the base and having a second opening of a dimension suitable to pass a light emission therethrough;

a second side wall coupled to the base and having a planar reflective component thereon, and the base, the first side wall, and the second side wall define an interior chamber with the planar reflective component disposed in the interior chamber; and

a fiber connector extending from an exterior of the first side wall adjacent the second opening.

20. (New) The apparatus of claim 19, further comprising a converging lens disposed about the first opening and defining a principal focus at the reflective component.

21. (New) The apparatus of claim 20 wherein the converging lens comprises a first converging lens, the apparatus further comprising a converging lens disposed about the second opening and the reflective component is disposed at a principal focus of each of the first lens and the second lens.

22. (New) The apparatus of claim 19, wherein the fiber connector is adapted to accept an LC connector.